

## Glossary of Mathematical Terms

**algorithm.** A specific set of instructions for carrying out a procedure or solving a problem.

**array.** An arrangement (usually rectangular) of objects or numbers.

**benchmarks.** Important units used as a referent for estimation. Benchmark numbers for fractions could be 0,  $\frac{1}{2}$ , 1,  $\frac{1}{3}$ , and so forth. Benchmarks for measurements could be multiples of standard units. Benchmarks for whole numbers could be multiples of 10, 100, 1000, and so forth.

**box plot (or box-and-whisker plot).** Displays a set of data with a rectangular box extending from the lower quartile to the upper quartile of the data and two lines extending from the ends of the box to the extreme values of the data.

**composing/decomposing a number.** A strategy used to reinforce number sense. Involves conceptualizing a number as being made up of two or more parts; putting the parts together to make a number is *composing* a number; breaking a number into two or more parts is *decomposing* the number.

**compute fluently.** Use efficient and accurate methods for computing.

**edge.** A line segment where two faces of a polyhedron meet.

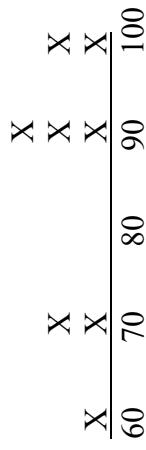
**faces.** The flat polygonal regions of a polyhedron.

**histogram.** A special type of bar graph that displays the frequency of data as rectangles with areas proportionate to the corresponding frequencies. Each bar has the same width. The width of the bar represents a range of values along the horizontal axis.

**inverse relationship between operations.** The inverse of a mathematical operation undoes the operation. For example, subtraction undoes addition.

**line graph.** In a line graph, points representing two related pieces of data are plotted and then connected by a line.

**line plot.** A line plot is used to display counts of various categories. Example:



*student Y's test scores, second quarter*

**models.** Concrete, pictorial, symbolic, verbal, and algorithmic representations.

**nets.** A two-dimensional fold-up model of a polyhedron.

**networks.** A graph or directed graph together with a function that assigns a positive real number to each edge.

**perfect square.** The product of an integer multiplied by itself. For example, 4 is a perfect square because  $2 \times 2 = 4$ ; 9 is a perfect square because  $3 \times 3 = 9$ .

**polygon.** A closed plane figure with  $n$  sides. The sides of a polygon are line segments.

**polygonal regions.** Flat surfaces enclosed by polygons.

**polyhedron.** A closed three-dimensional object whose surfaces are formed by polygonal regions (e.g., prism, pyramid, octahedron).